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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/500,304	02/08/2000	Francoise Groliere	PHF-99,508	2404
24737	7590	04/16/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			LAROSE, COLIN M	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 04/16/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/500,304

Applicant(s)

GROLIERE, FRANCOISE

Examiner

Colin M. LaRose

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Arguments and Amendments

1. Applicants' amendments and/or arguments filed 25 March 2004, have been entered and made of record.

Response to Amendments and Arguments

2. In view of Applicant's arguments (see pages 5-8 of paper 11), the previous rejections under 35 USC 103(a) in paragraph 5 of paper 10 have been withdrawn. However, an alternate application of the Read and Zhou references is applied below to set forth new grounds of rejection under 35 USC 103(a).

Double Patenting

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claim 7 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 4.
- When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim

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to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 2, and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,796,875 by Read in view of U.S. Patent 6,236,764 by Zhou.

Regarding claims 1 and 6, Read discloses a method/device (figure 1A) for decoding data representing a sequence of pictures previously divided into blocks and coded, comprising, for each successive picture, at least the steps of/means for:

decoding said data (20);

filtering the decoded data (30);

said filtering step being applied to at least one pixel component of a selected segment of consecutive pixels located on a single line or column of the current picture and on both sides of a boundary between two blocks, so that the boundary divides the segment into two parts (figure 3: segment BC consists of two pixels located on the same line and divided by a boundary into a right part ("C") and a left part ("B")),

wherein said filtering step is applied only if the pixels at the ends of said segment have components that agree with a similarity criterion (step 215, figure 2: filtering is only applied if the difference between boundary pixels B and C is less than a threshold; in addition, pixels B and C are at the ends of the segment),

wherein said filtering step is applied only if the two pixels at the ends of a part of said segment have components that agree with a similarity criterion step 215, figure 2: filtering is only applied if the difference between boundary pixels B and C is less than a threshold; in addition, pixels B and C are at the ends of respective parts of the segment (i.e. C is at the end of the right part, and B is at the end of the left part).

Read discloses that “the difference between pixels” is determined (column 3, lines 43-46).

However, Read does not expressly disclose determining the differences on the bases of luminance and chrominance.

Zhou discloses a deblocking filtering system in the MPEG environment, similar to that of Read, which operates in the ITU H.261 environment. Zhou performs comparisons of boundary pixels to determine whether boundary filtering should occur (figure 5). In particular, Zhou teaches that boundary comparisons for luminance and chrominance components are performed independently. As shown in figure 5, boundary comparison and filtering steps are carried out for the luminance component, and then the same steps are repeated (110) for the chrominance components. Both the MPEG and H.261 formats utilize a 4:2:0 coding scheme as shown in figures 1C and 1D of Zhou. Accordingly, Zhou notes there are no intra-macroblock boundaries for the chroma components due to the chrominance channels being encoded at a lower spatial resolution than the luminance channel (column 9, lines 60-67). Therefore, intra-macroblock deblocking filtering for the chroma components is unnecessary.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Read by Zhou to achieve the claimed invention by performing boundary pixel

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comparisons on the bases of luminance and chrominance components since Zhou teaches that images encoded by the conventional 4:2:0 encoding standards are advantageously deblocked by processing the luminance and chrominance components separately.

Regarding claims 4 and 7, Read teaches the elements of claim 1, wherein the filtering is applied only if, for each part of the segment, the two pixels at the ends of the part of said segment have luminance components that agree with a similarity criterion (step 215, figure 2: filtering is only performed if the (luminance) difference between boundary pixels B and C, which are at the ends of the left and right parts of the segment, respectively, is less than a threshold).

Regarding claims 2 and 8, the combination of Read and Zhou, as applied to claim 1, teaches comparing the respective chrominance components and filtering only if the difference is lower than a threshold, as claimed.

Regarding claims 5 and 9, Read discloses said filtering step is applied only if the two consecutive pixels of said segment located on each side of the boundary have luminance components that agree with a similarity criterion (step 215, figure 2: filtering is only performed if the (luminance) difference between boundary pixels B and C, which are on each side of the boundary, is less than a threshold).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,337,088 by Honjo

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colin M. LaRose whose telephone number is (703) 306-3489. The examiner can normally be reached Monday through Thursday from 8:00 to 5:30. The examiner can also be reached on alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au, can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600 Customer Service Office whose telephone number is (703) 306-0377.

CML

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13 April 2004


AMELIA M. AU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600